

Fig. 1 Transmitter

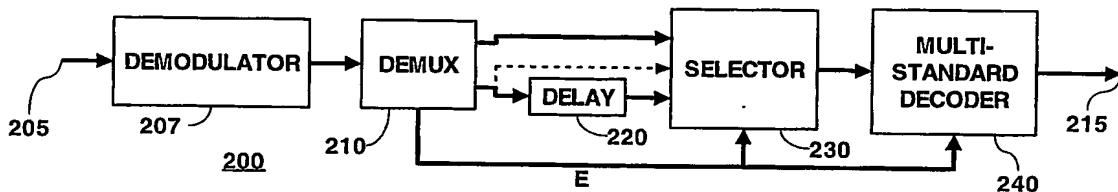


Fig. 2 Receiver

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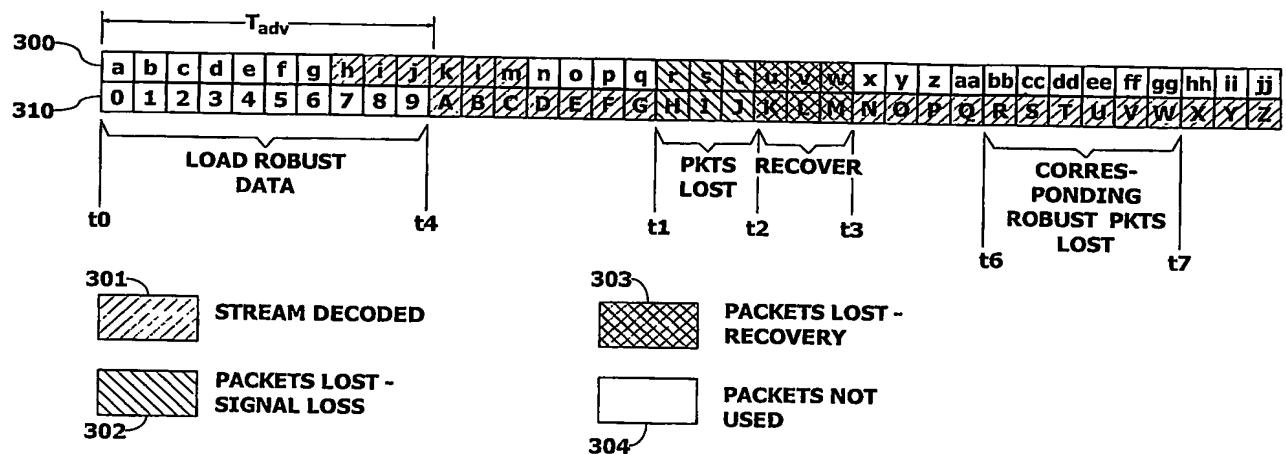


Fig. 3 Packet Streams

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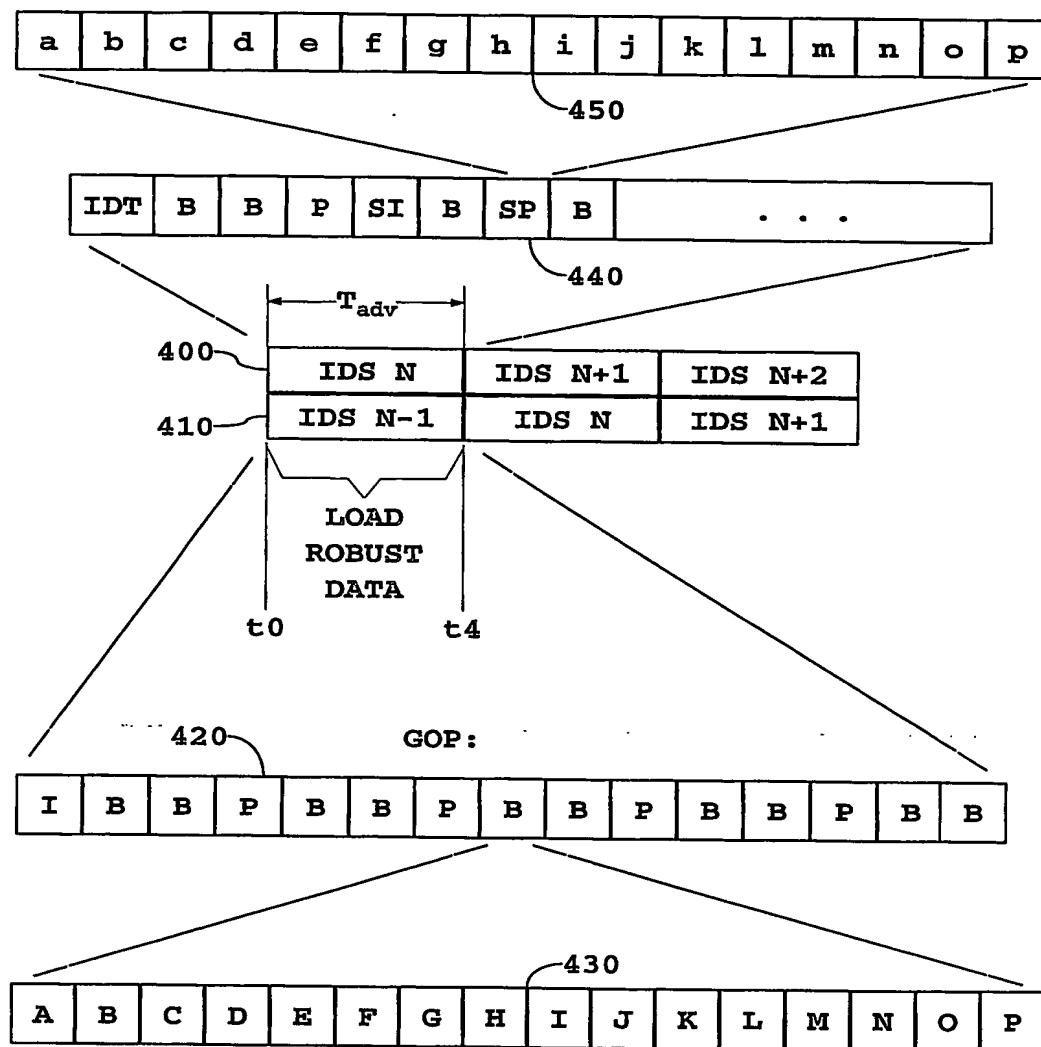


Fig. 4 GOP Streams

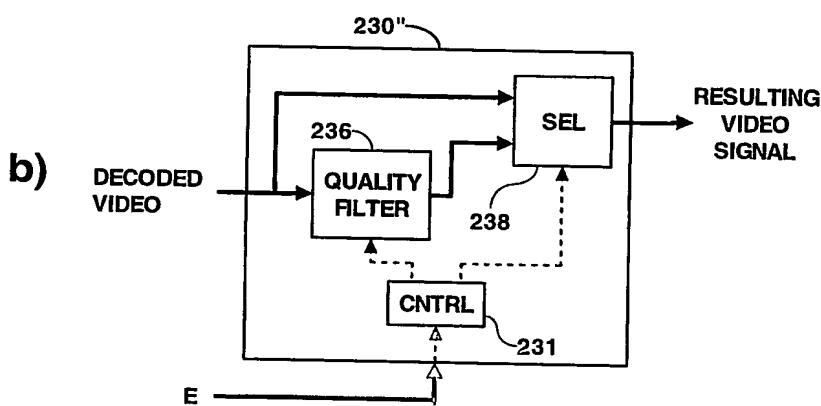
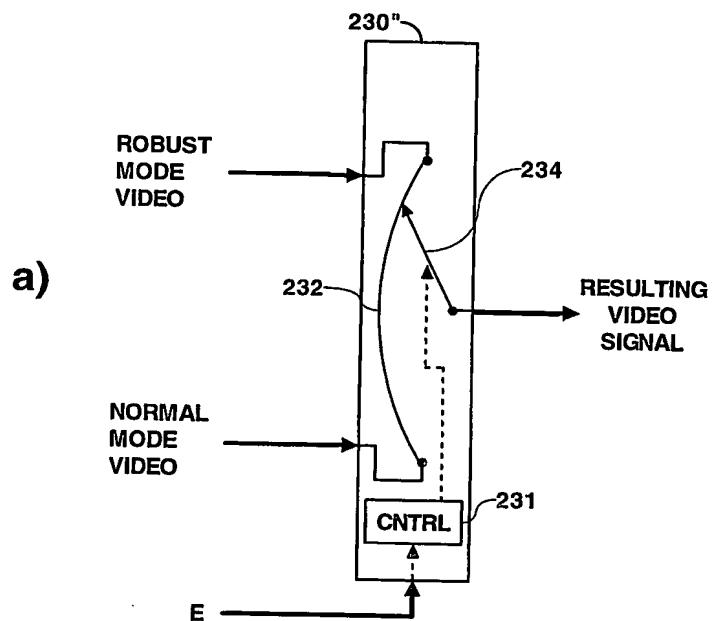


Fig. 5 Smoothing selector

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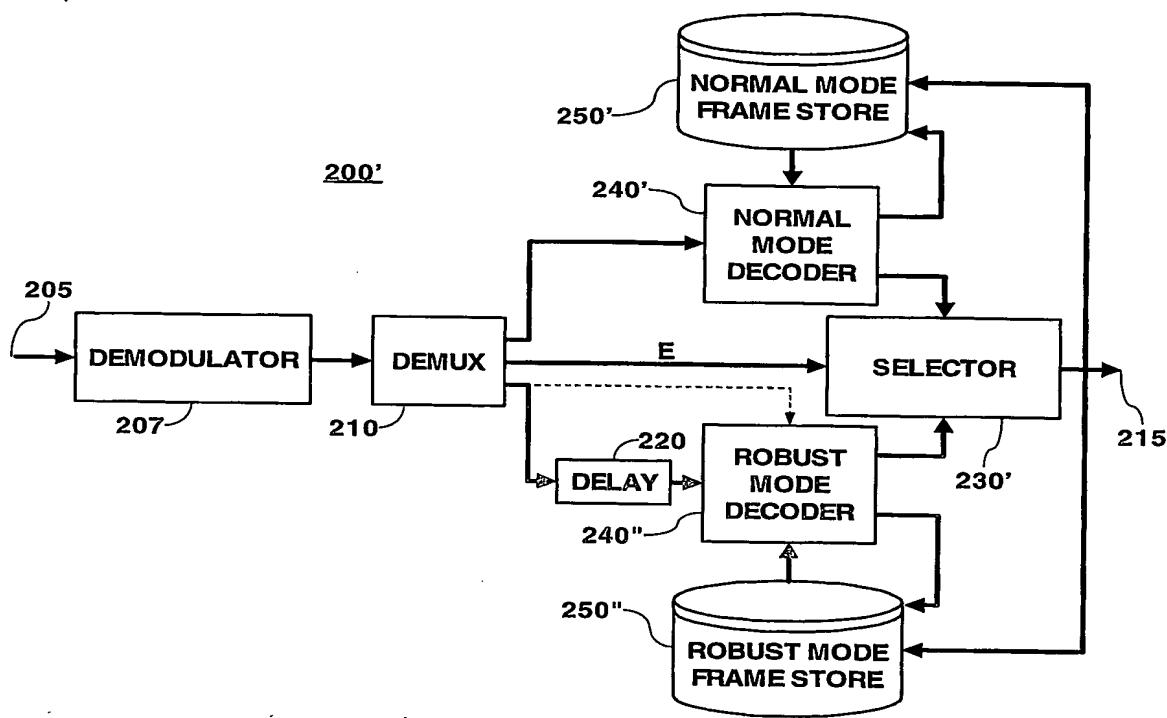
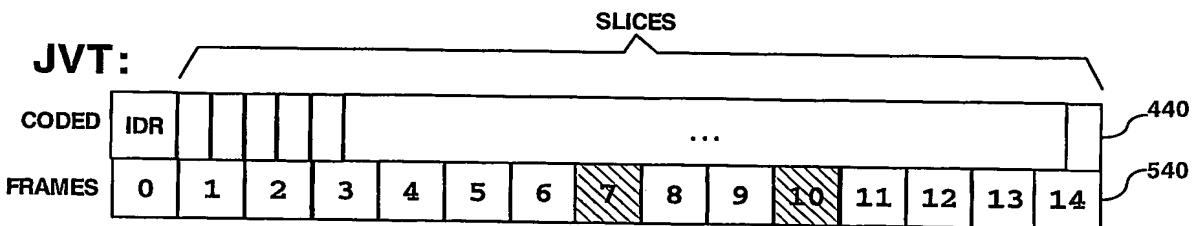


Fig. 6 Picture layer receiver

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MPEG:

CODED FRAMES	I	B	B	P	B	B	P	B	B	P	B	B	P	B	B	420
FRAMES	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	520

JVT:**OUTPUT:**

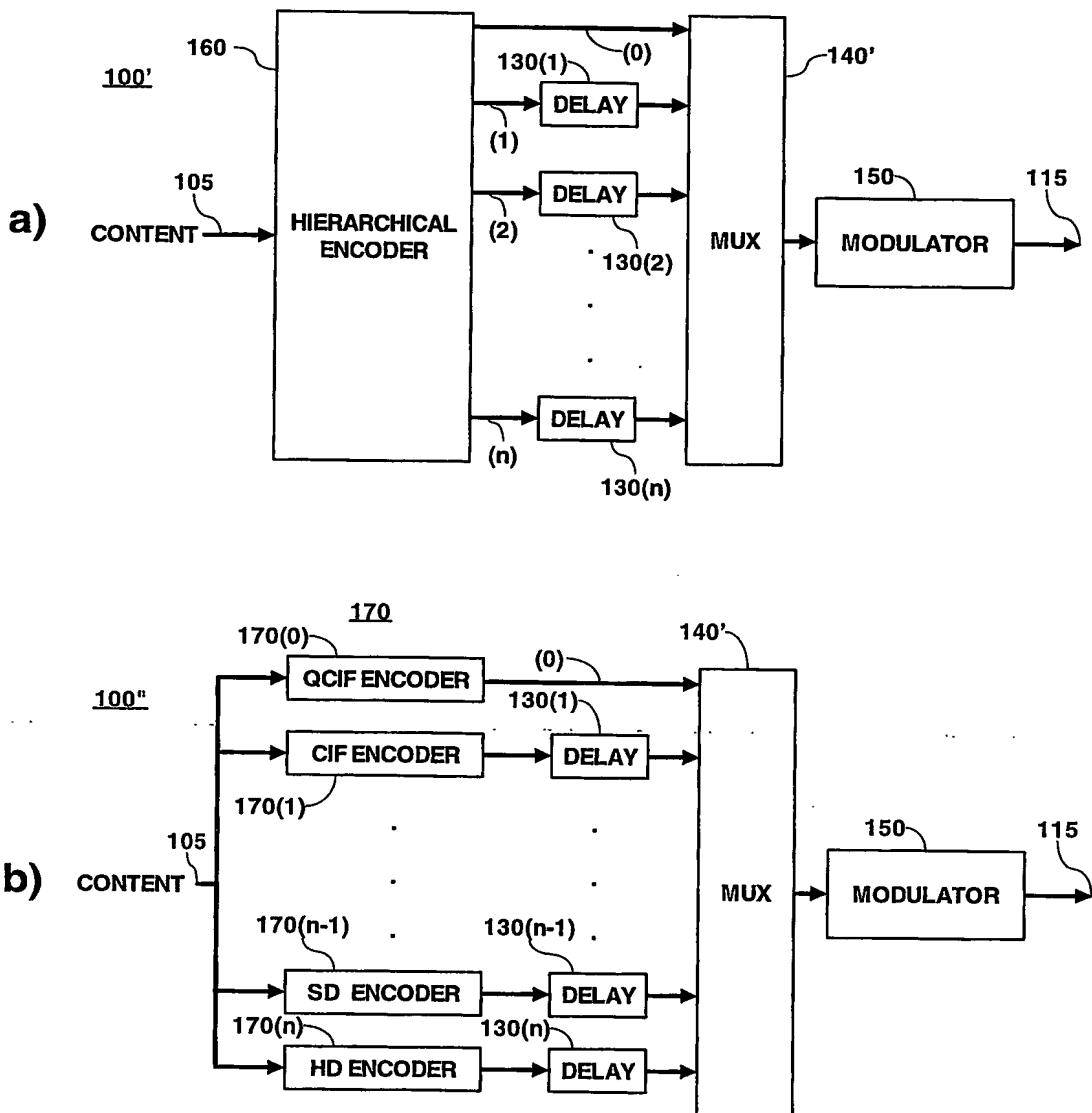
FRAMES	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	460
SOURCE	M	M	M	M	M	M	J	M	M	M	XX	M	M	J	M	560

Fig. 7 Picture layer streams

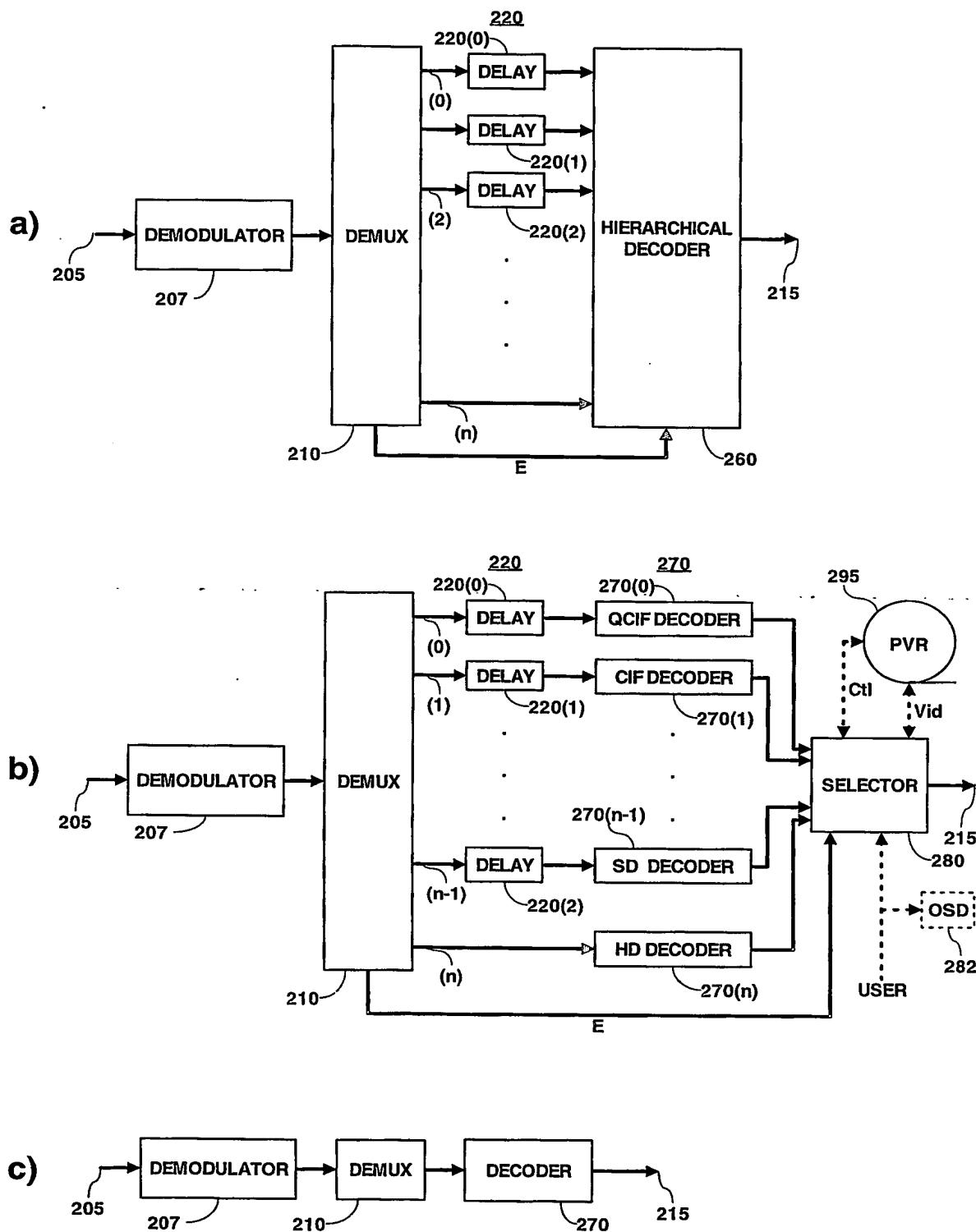
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Number_of_Robust_simulcast_channels	<u>802</u>	up to 256 channels supported	8 bit unit
For (i=0;i<number_of_robust_simulcast_channels;i++){			
Robust_Mode_PID	<u>804</u>	Identifies this channel in the TS	16 bit unit
Simulcast_data_type	<u>806</u>	0 = video 1 = audio 2 = data	2 bit unit
If(Simulcast_data_type == 0){	<u>812</u>		
Robust_Mode_video_compression_format		0 = ATSC MPEG2 MP@HL 1 = JVT MP@level all others reserved_for_future_use	6 bit unit
Robust_Mode_video_frame_rate		Frame rate in frames per second	7 bit unit
Robust_Mode_video_frame_interlaced		If 0 then progressive, else interlaced	1 bit unit
Robust_Mode_video_frame_horz		Horizontal frame resolution	16 bit unit
Robust_Mode_video_frame_vert		Vertical frame resolution	16 bit unit
Robust_Mode_video_frame_bitrate		Video elementary stream bit rate in bps	32 bit unit
Else	<u>814</u>		
Robust_Mode_audio_compression_format		0 ATSC AC-3 1 MP3pro all others reserved	6 bit unit
Robust_Mode_audio_bitrate		Audio elementary bit rate in bps	24 bit unit
Robust_Mode_audio_sample_rate		Audio sample rate in Ksamples per sec	8 bit unit
Robust_Mode_audio_mode		0 5.1 channels 1 2 channel others	8 bit unit
}			
Normal_mode_simulcast_PID	<u>808</u>	PID of the normal channel which this robust mode channel duplicates.	16 bit unit
Robust_to_Normal_delay_offset	<u>810</u>	A 32 bit value in 90 KHZ clock cycles indicating the delay from robust channel to the normal channel	32 bit unit
Robust_Mode_High_Quality	<u>816</u>	IF 0 THEN the receiver should use the normal channel if available ELSE the broadcaster recommends use of the robust channel instead of the normal channel	1 bit unit
} // end for loop robust channels			

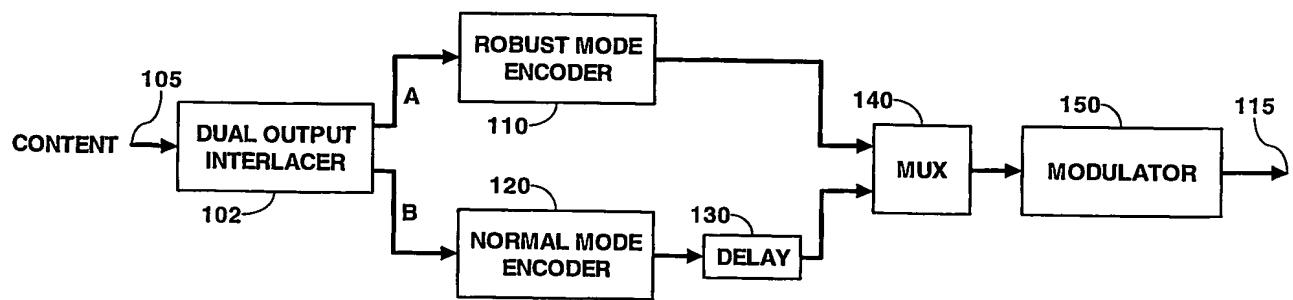
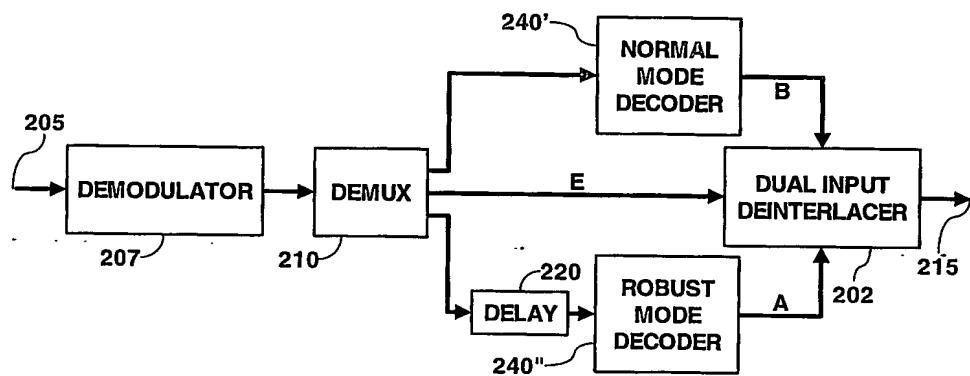
Fig. 8 PSIP/VCT Table

**Fig. 9 Multiresolution transmitter**

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**Fig. 10 Multiresolution receiver**

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**Fig. 11 Dual interlace transmitter****Fig. 12 Dual interlace receiver**

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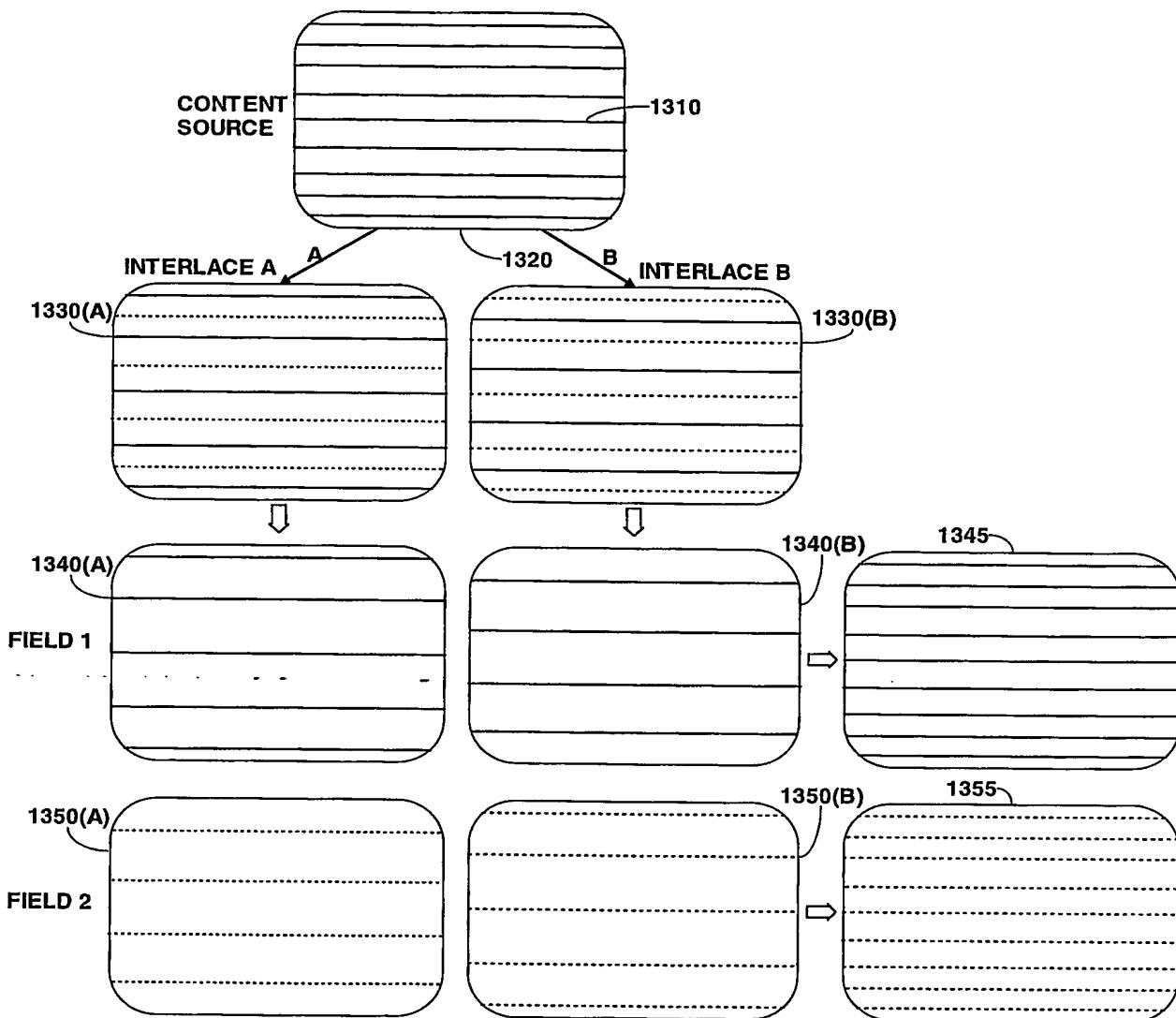


Fig. 13 Dual interlace display images